Form 3160-4 (August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOS										Ī	5. Lease Serial No. NMNM013885			
la. Type of	_	Oil Well		Well _	•	Other					6. If Inc	lian, Allo	ttee or	Tribe Name
b. Type of Completion New Well Work Over Deepen Plug Back Diff. Resvr. Other									lesvr.	7. Unit or CA Agreement Name and No. NMNM108292				
Name of Operator Contact: CHERRY HLAVA BP AMERICA PRODUCTION CO E-Mail: hlavacl@bp.com											8. Lease Name and Well No. CRAWFORD COM B 1			
3. Address P. O. BOX 3092 3a. Phone No. (include area code) HOUSTON, TX 77253 Ph: 281.366.4081										,	9. API Well No. 30-045-07983-00-C2			
Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 24 T29N R12W Mer NMP											10. Field and Pool, or Exploratory OTERO CHACRA			
At surface NWSW 1450FSL 0810FWL 36.70857 N Lat, 108.05644 W Lon 11. Sec., T., R., M., or Block at											Block and Survey			
At top prod interval reported below											or Area Sec 24 T29N R12W Mer NMF County or Parish 13. State			
At total	-											N JUAN		NM
14. Date Spudded 15. Date T.D. Reached 16. Date Completed 10/01/1961 10/14/1961 □ D & A Ready to Prod. 03/05/2003 03/05/2003									rod.	17. Elevations (DF, KB, RT, GL)* 5629 GL				
18. Total D	epth:	MD TVD	6356	11	9. Plug E	ack T.D.	MI TV		314	20. Dept	h Bridge	e Plug Se		MD 6100 TVD
21. Type E GR;CBI	lectric & Oth L&CCL	er Mecha	nical Logs R	un (Submi	t copy of	each)			Was	well cored? DST run? tional Surv	ey?	No i	₹ Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	ort all strings	set in wel	1)								-	
Hole Size	Hole Size Size/Grade		Wt. (#/ft.)	Top (MD)		tom St D)	age Cemer Depth		of Sks. & of Cement	Slurry V (BBL	1 (Cement Top*		Amount Pulled
12.250		25 J-55	23.0			290	,		250					
7.875	4.5	500 J-55	11.0			6356		_	675					
							_			 				
									-					***
34 T.L.	Desard													
24. Tubing Size	Depth Set (M	(D) P	acker Depth	(MD)	Size	Depth Se	et (MD)	Packer De	epth (MD)	Size	Denti	n Set (MI	0) [1	Packer Depth (MD)
2.375	acker Deptil	(MD)	Size	nze Beptii Set		b) Tacker Deptir (<u> </u>		zepan ou (mz)		Tacker Depth (IVID)		
25. Producii	ng Intervals		- ·			26. Pe	rforation l	Record						
	ormation		Тор			ottom		Perforated Interval		Size		No. Holes		Perf. Status
A)	CHA	CRA	2660		277	2776		2660 TO 2				14 1 JS		
B)								2700 10 2770		3.130		10 7 331		<u> </u>
D)			. 75											
	Depth Interva		ment Squeeze	e, Etc.				Amount or	nd Type of N	Moterial		<u> </u>		
			664 70 Q FC	AM & 46,7	00# 16/30	BRADY S	SAND	Amount ai	id Type of N	Tateriai	#.	<u>Note</u>		NT ON STate
2760 TO 2776 5 BBLS 4% KCL WTR, FOLLOWED W/12 BBLS 15% HCL FORM 9150.														
28. Product	ion - Interval	A	<u>_</u> _ <u>_</u>											
Date First	Test	Hours	Test	Oil	Gas MCF	Wate		Dil Gravity	Gas		roduction	Method		
Produced Date Tested 03/06/2003 03/04/2003 24		Production	uction BBL 0.0) BBL	15.0	Corr. API	Gravit	'	ELECTRIC PUMP		PUMP S	SUB-SURFACE	
Choke Size	Tbg. Press. Flwg. 45	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Wate BBL		ias:Oil	Well S	tatus				
1/4 SI 0.0 —						15		Ratio 5		GSI		ACCE	ACCEPTED FOR RECORD	
	tion - Interva			Log	Gas									
Date First Test Hours Produced Date Tested		Test Production			Wate BBL	Oil Gravity Corr. API		Gas Gravit		Production Method		" JUN 1 1 2003		
Size Flwg. Press. R			24 Hr. Rate			Gas Water MCF BBL		Gas:Oil Ratio		tatus		FARM	FARMINGTON FYELD OFFICE	
	SI	l		l			ı						/	47

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #22170 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
*** BLM REVISED *** BLM REVISED *** BLM REVISED *** BLM REVISED ***

28h Proc	luction - Interv	/al C	_										
Date First	Test 1	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method			
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	Gravit	ty				
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well S	Status				
28c. Prod	luction - Interv	al D	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>1</u>					
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravit	ty	Production Method			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well S	Status				
29. Dispo	osition of Gas(MEASURABL	Sold, used E GAS	for fuel, ven	ted, etc.)	1	<u> </u>	<u> </u>	1					
	nary of Porous		clude Aquife	rs):					1 31. For	mation (Log) Markers			
Show tests,	all important	zones of pe	orosity and c	ontents there	eof: Cored in e tool open,	ntervals and a flowing and	all drill-stem shut-in pressur	res		, U			
Formation			Тор	Bottom		Description	is, Contents, et	c.		Top Meas. Depth			
On 6 Otero was Well wate	tional remarks 5/5/02 BP Am o Chacra & c granted by th never produc r to be econd	erica Procommingle in NMOCI ced in the omical.	duction Con production on 6/10/03 Chacra afte	npaný requidownhole downhole 3. DHC 807	with the exi AZ.	isting Basin	the NMOCD Dakota. Perr	mission	PIC LE: MB MA GA GR	KOTA CTURED CLIFFS WIS SHALE ESAVERDE INCOS ILLUP REENHORN	1673 1832 3195 4392 5284 6020		
	se see the at		mpletion re	port.									
	e enclosed atta		/1 C **			•			D.000.0		. 10		
	lectrical/Mechaindry Notice f	•	`	• ′		Report lysis		DST Re Other:	port 4. Direct	ional Survey			
34. I here	by certify that	t the forego	oing and atta	hed inform	ation is com	plete and cor	rect as determi	ned from al	l availabl	e records (see attached instruc	ctions):		
	,,		Elect	ronic Subm For BP A	ission #221 MERICA F	70 Verified PRODUCTION	by the BLM V ON CO, sent the hew Halbert o	Vell Inform to the Farn	nation Sy nington	stem.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Name	e(please print	CHERRY							-	PRESENTATIVE			
Signa	Signature (Electronic Submission)							Date 05/21/2003					
Title 10	II 9 C. Sention	1001 and	Title 42 TIC	C Section	112 males	it a anima fa	ony posses I	owingl	A wittent	v to make to any do-	or agency		
of the Ur	nited States an	y false, fict	titious or frac	Lulent staten	ents or repr	esentations a	s to any matter	within its j	urisdictio	y to make to any department on.	п адепсу		

Additional data for transaction #22170 that would not fit on the form

32. Additional cemarks, continued

CRAWFORD GAS COM B 1 SUBSEQUENT REPORT 05/21/2003

2/19/03 SET CIBP @6100'. PRESSURE TEST CIBP, CSG, BOP's TO 540# HELD OK.

2/20/03 RU & RAN GR & CBL OVER CHACRA. NO CMT BOND IN THIS AREA. CALLED J. PAPAGEORGE & BILL REDMOND, SHOOT 4 SQUEEZE HOLES @2880' KBM, DRLG MUD ON WL SQ. GUNS, TRY PMP WTR IN TO SQZ HOLES, PRESS UP TO 700# w/RIG PMP, NO RATE, SLOW BLEED OFF, SHOOT 4 SQZ HOLES @2510' R/A WL, M/U 4 ½ SQZ RETAINER ON TBG. TIH & SET CMT SQZ RETAINER @2850'. SDFN.

2/21/03 ATTEMPT TO CIRC THRU TBG STUNG INTO CMT RETAINER SA 2850' THRU SQZ HOLES @2880' & 2510', CIRC ESTABLISHED & THEN LOST CIRC AFTER PMP WTR SHORT TIME, STING OUT OF RETAINER, SPOT CMT @ END OF TBG, SQZ BTM PERFS BELOW RETAINER w/10 BBLS SLURRY, SQZ PRESS+1000#, STING OUT OF RETAINER & TOH & L/D STINGER, TIH TBG OPEN ENDED, SPOT 10 bbls CMT SLURRY BALANCED PLUG @2520', TOH TBG, CLOSE RAMS, PRESSURE UP & SQZ 9 bbls SLURRY INTO TOP SQZ HOLES & GOT PRESSURE UP TO 950 PSI, SI WELL w/950 PSI, R/D CMTRS. SDF WEEKEND.

2/24/03 TIH & TAG CMT @2139' PU PWR SWIVEL, CIRC w/WTR, DRILL CMT STRINGERS TO 2485', DRL GOOD CMT FROM 2485' TO 2582', CIRC HOLE CLEAN, PRESSURE TST SQZ HOLES @2510 TO 525 PSI, HOLD GOOD. CONT CLEAN & L/D P. SWIVEL, PULL 8 JTS TBG & SDFN.

2/25/03 TIH & TAG CMT @2670', PU PWR SWIVEL CIRC w/WTR, CONT DRILL CMT 2670' TO CMT SQZ RETAINER SA 2850'. DRILL SQZ RETAINER & CONT DRILL SOLID CMT TO 2883' & FELL FREE, CIRC HOLE CLEAN & CLOSE PIPE RAMS & PRESSURE TEST BTM SQZ PERF HOLES @2880' TO 550# w/RIG PMP & HELD OK. L/D P. SWIVEL & POH w/5 STAND TBG, SDFN. 2/26/03 RU WIRELINE & PERF CHACRA w/3 1/8" CSG GUNS @2660' TO 2664' 14 TOTAL HOLES, 0.40" HOLES & PERF 2760' – 2776' w/TOTAL OF 16 .40" HOLES w/DP 22 GRAM CHARGE, R/d WL, SPOT FLOAT w/ 2 7/8", 6.4#, N-80 BUTTRESS THREAD FRAC TBG STRING, TO 1300', SDFN.

2/27/03 FINISHED RIH RBP & PKR & PU 2 7/8" FRAC STRING TBG, CIRC CLEAN w/4% KCL WTR, SET RBP @2827', PULL-PKR UP HOLE & SET PKR @ 2696' BREAK DN PERFS @ 2760' TO 2776, w/5 bbls KCL WTR & 500 GAL 15% HCL, DISPLACE ACID w/16 bbls KCL, FLUID COMMUNICATING w/TOP PERFS @ 2660' TO 2664', PULL PKR UP HOLE & RE-SET PKR AT 2602', BREAK DN PERFS @ 2660' TO 2664' w/5 bbls 4% KCL WTR & 500 GAL 15% HCL, DISPLACE ACID w/14.3 bbls 4% KCL, PERFS BROKE DN @ 1300 PSI, ISIP=806#, PRESS @ 0# IN 10 MIN, REL PKR, RIH TBG, & RELEASE RBP, TOH, M/U NEW 4 ½" PKR & TIH w/ 2 7/8", 6.4#, N-80, BUTTRESS THREAD, RU STINGER HUDRALIC VALVE, SET PKR @ 2606', KBM, NU STINGER HYD. VALVE TO TOP OF BOP'S, SDFN.

2/28/03 SET PKR 2606'. RU & FOAM FRAC CHACRA w/70 q CLEAR FRAC FOAM & 42,863# 16/30 BRADY SND. W/N2 & TTL OF 277 bbls 4% KCL WTR, STAGE SND FROM 1 PPG THRU 5 PPG, FLUSHED TO TOP PERF w/15.5 bbls 4% KCL WTR. AVG PRESS WAS 2796 PSI, MAX TREATING PRESS = 3570#, AVG RATE=19.3 BPM, MAX INJECTION RATE = 28.1 BPM, ISIP=1430#, SI RD FRAC EQUIP. TEST WELL CHACRA.

3/3/03 TIH & SET CIBP @ 2590'. TOH LAD DN 2 7/8" BUTTRESS, RU & TIH w/MILL & TBG TO 2850'. TAG NOTHING, TOH TO 2400'. FLW WELL.

3/5/03 TIH & LAND TBG @2766'. RU & PULL PLUGS. RD.

WELL HAS A CIBP @ 6100' & HAS NOT PRODUCED FROM THE DAKOTA OR THE CHACRA.

Addisonal data for transaction #22170 that would not fit on the form

32. Additional remarks, continued